

## CLAIMS

What is claimed is:

1. A network device comprising:  
a media access controller (MAC); and  
a physical layer including an interface that communicates with said MAC, first and second transceivers, a first autonegotiation circuit that attempts to establish a first link using said first transceiver over a first media, a second autonegotiation circuit that attempts to establish a second link using said second transceiver over a second media, and a media selector that communicates with said interface and said first and second autonegotiation circuits and that enables data flow from said first media to said MAC using said interface when said link over said first media is established first.
2. The network device of claim 1 wherein said media selector powers down at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is established first.
3. The network device of claim 2 wherein said media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

4. The network device of claim 1 wherein said media selector enables data flow from said second media to said MAC using said interface when said second link over said second media is established first.

5. The network device of claim 4 wherein said media selector powers down at least one of said first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

6. The network device of claim 5 wherein said media selector powers up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

7. The network device of claim 1 wherein said media selector enables data flow from said first media to said MAC using said interface when said first and second links over said first and second media are established at the same time.

8. The network device of claim 7 wherein said media selector powers down at least one of said second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

9. The network device of claim 8 wherein media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

10. The network device of claim 1 wherein said first media is copper and said second media is optical fiber.

11. The network device of claim 1 wherein said interface is a physical coding sublayer (PCS) circuit.

12. The network device of claim 1 further comprising a status indicator that identifies the link that was established first.

U:\Legal\janofsky\patapp\MP0121\MP121\_APP.doc  
Customer No. 23624

13. A network device comprising:

a media access controller (MAC); and

a physical layer including a first interface that communicates with said MAC, first and second transceivers, a first autonegotiation circuit that attempts to establish a first link using said first transceiver over a first media, a second interface that communicates with said MAC, a second autonegotiation circuit that attempts to establish a second link using said second transceiver over a second media, and a media selector that communicates with said first and second interfaces and said first and second autonegotiation circuits and that enables data flow from said first media to said MAC using said first interface when said link over said first media is established first.

14. The network device of claim 13 wherein said media selector disables said second interface and powers down at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

15. The network device of claim 14 wherein said media selector enables said second interface and powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

16. The network device of claim 13 wherein said media selector enables data flow from said second media to said MAC using said second interface when said second link over said second media is established first.

17. The network device of claim 16 wherein said media selector disables said first interface and powers down at least one of said first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

18. The network device of claim 17 wherein said media selector enables said first interface and powers up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

19. The network device of claim 13 wherein said media selector enables data flow from said first media to said MAC using said first interface when said first and second links over said first and second media are established at the same time.

20. The network device of claim 19 wherein said media selector disables said second interface and powers down at least one of said second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

21. The network device of claim 20 wherein media selector enables said second interface and powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

22. The network device of claim 13 wherein said first media is copper and said second media is optical fiber.

23. The network device of claim 13 wherein said first and second interfaces are physical coding sublayer (PCS) circuits.

24. The network device of claim 13 further comprising a status indicator that identifies the link that was established first.

25. A physical layer of a network device including a media access controller, comprising:

an interface that communicates with said media access controller (MAC) and that has first and second modes of operation;

a first transceiver;

a first autonegotiation circuit that attempts to establish a first link using said first transceiver over a first media;

a second transceiver;

a second autonegotiation circuit that attempts to establish a second link using said second transceiver over a second media; and

a media selector that communicates with said interface and said first and second autonegotiation circuits and that enables data flow from said first media to said MAC using said first mode of said interface when said link over said first media is established first.

26. The physical layer of claim 25 wherein said media selector powers down at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

27. The physical layer of claim 26 wherein said media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

28. The physical layer of claim 25 wherein said media selector enables data flow from said second media to said MAC using said second mode of said interface when said second link over said second media is established first.

29. The physical layer of claim 28 wherein said media selector powers down at least one of said first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

30. The physical layer of claim 29 wherein said media selector powers up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

31. The physical layer of claim 25 wherein said media selector enables data flow from said first media to said MAC using said first mode of said interface when said first and second links over said first and second media are established at the same time.

32. The physical layer of claim 31 wherein said media selector powers down at least one of said second autonegotiation circuit and said first transceiver when said first and second links over said first and second media are established at the same time.



33. The physical layer of claim 32 wherein media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

34. The physical layer of claim 25 wherein said first media is copper and said second media is optical fiber.

35. The physical layer of claim 25 further comprising a status indicator that identifies the link that was established first.

U:\Legal\ejanofsky\patapp\MP0121\MP121\_APP.doc  
Customer No. 23624

36. A network device comprising:

a physical layer including an interface, first and second transceivers, a first autonegotiation circuit that attempts to establish a first link using said first transceiver over a first media, a second autonegotiation circuit that attempts to establish a second link using said second transceiver over a second media, and a media selector that communicates with said interface and said first and second autonegotiation circuits and that enables data flow from said first media using said interface when said link over said first media is established first.

37. The network device of claim 36 further comprising a media access controller (MAC) that communicates with said interface.

38. The network device of claim 37 wherein said media selector powers down at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

39. The network device of claim 38 wherein said media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

40. The network device of claim 37 wherein said media selector enables data flow from said second media to said MAC using said interface when said second link over said second media is established first.

41. The network device of claim 40 wherein said media selector powers down at least one of said first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

42. The network device of claim 41 wherein said media selector powers up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

43. The network device of claim 37 wherein said media selector enables data flow from said first media to said MAC using said interface when said first and second links over said first and second media are established at the same time.

44. The network device of claim 43 wherein said media selector powers down at least one of said second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

45. The network device of claim 44 wherein media selector powers up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

46. The network device of claim 36 wherein said first media is copper and said second media is optical fiber.

47. The network device of claim 36 wherein said interface is a physical coding sublayer (PCS) circuit.

48. The network device of claim 36 further comprising a status indicator that identifies the link that was established first.

U:\Legal\ejanofsky\patapp\MP0121\MP121\_APP.doc  
Customer No. 23624

49. A network device including a media access controller (MAC),  
comprising:

a physical layer including interface means for communicating with  
said MAC, first and second transceivers, first autonegotiation means for  
attempting to establish a first link using said first transceiver over a first  
media, second autonegotiation means for attempting to establish a second  
link using said second transceiver over a second media, and media  
selection means for communicating with said interface means and said  
first and second autonegotiation means and for enabling data flow from  
said first media to said MAC using said interface means when said link  
over said first media is established first.

50. The network device of claim 49 wherein said media selection  
means powers down at least one of said second autonegotiation means and said  
second transceiver when said first link over said first media is established first.

51. The network device of claim 50 wherein said media selection  
means powers up said at least one of said second autonegotiation means and  
said second transceiver when said first link is lost.

52. The network device of claim 49 wherein said media selection  
means enables data flow from said second media to said MAC using said

interface means when said second link over said second media is established first.

53. The network device of claim 52 wherein said media selection means powers down at least one of said first autonegotiation means and said first transceiver when said second link over said second media is established first.

54. The network device of claim 53 wherein said media selection means powers up said at least one of said first autonegotiation means and said first transceiver when said second link is lost.

55. The network device of claim 49 wherein said media selection means enables data flow from said first media to said MAC using said interface means when said first and second links over said first and second media are established at the same time.

56. The network device of claim 55 wherein said media selection means powers down at least one of said second autonegotiation means and said second transceiver when said first and second links over said first and second media are established at the same time.

57. The network device of claim 56 wherein media selection means powers up said at least one of said second autonegotiation means and said second transceiver when said first link over said first media is lost.

58. The network device of claim 49 wherein said first media is copper and said second media is optical fiber.

59. The network device of claim 49 wherein said interface means is a physical coding sublayer (PCS) circuit.

60. The network device of claim 49 further comprising a status indicator that identifies the link that was established first.

61. A network device comprising:

- a media access controller (MAC);
- a physical layer including interface means for communicating with said MAC, first and second transceivers, first autonegotiation means for attempting to establish a first link using said first transceiver over a first media, second autonegotiation means for attempting to establish a second link using said second transceiver over a second media, and media selection means for communicating with said interface means and said first and second autonegotiation means and for enabling data flow from said first media to said MAC using said interface means when said link over said first media is established first.

62. The network device of claim 61 wherein said media selection means powers down at least one of said second autonegotiation means and said second transceiver when said first link over said first media is established first.

63. The network device of claim 62 wherein said media selection means powers up said at least one of said second autonegotiation means and said second transceiver when said first link is lost.

64. The network device of claim 61 wherein said media selection means enables data flow from said second media to said MAC using said



interface means when said second link over said second media is established first.

65. The network device of claim 64 wherein said media selection means powers down at least one of said first autonegotiation means and said first transceiver when said second link over said second media is established first.

66. The network device of claim 65 wherein said media selection means powers up said at least one of said first autonegotiation means and said first transceiver when said second link is lost.

67. The network device of claim 61 wherein said media selection means enables data flow from said first media to said MAC using said interface means when said first and second links over said first and second media are established at the same time.

68. The network device of claim 67 wherein said media selection means powers down at least one of said second autonegotiation means and said second transceiver when said first and second links over said first and second media are established at the same time.

69. The network device of claim 68 wherein media selection means powers up said at least one of said second autonegotiation means and said second transceiver when said first link over said first media is lost.

70. The network device of claim 61 wherein said first media is copper and said second media is optical fiber.

71. The network device of claim 61 wherein said interface means is a physical coding sublayer (PCS) circuit.

72. The network device of claim 61 further comprising status indicating means for identifying the link that was established first.

73. A method for operating a network device, comprising:

- providing a media access controller (MAC);
- attempting to autonegotiate a first link using a first transceiver over a first media;
- attempting to autonegotiate a second link using a second transceiver over a second media; and
- enabling data flow from said first media to said MAC when said link over said first media is established first.

74. The method of claim 73 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

75. The method of claim 74 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

76. The method of claim 73 further comprising enabling data flow from said second media to said MAC when said second link over said second media is established first.

77. The method of claim 76 further comprising powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

78. The method of claim 77 further comprising powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

79. The method of claim 73 further comprising enabling data flow from said first media to said MAC when said first and second links over said first and second media are established at the same time.

80. The method of claim 79 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

81. The method of claim 80 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

82. The method of claim 73 wherein said first media is copper and said second media is optical fiber.

83. The method of claim 73 further comprising generating a status signal based on the link that was established first.

U.S. Pat. No. 7,811,111 B2

84. A method for operating a network device including a media access controller (MAC), comprising:

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media; and

enabling data flow from said first media to said MAC when said link over said first media is established first.

85. The method of claim 84 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

86. The method of claim 85 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

87. The method of claim 84 further comprising enabling data flow from said second media to said MAC when said second link over said second media is established first.

88. The method of claim 87 further comprising powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

89. The method of claim 88 further comprising powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

90. The method of claim 84 further comprising enabling data flow from said first media to said MAC when said first and second links over said first and second media are established at the same time.

91. The method of claim 90 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

92. The method of claim 91 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

93. The method of claim 84 wherein said first media is copper and said second media is optical fiber.

94. The method of claim 84 further comprising generating a status signal based on the link that was established first.

U.S. Pat. No. 7,811,111 B2



95. A software method for operating a network device including a media access controller (MAC), comprising:

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media; and

enabling data flow from said first media to said MAC when said link over said first media is established first.

96. The software method of claim 95 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

97. The software method of claim 96 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

98. The software method of claim 95 further comprising enabling data flow from said second media to said MAC when said second link over said second media is established first.

99. The software method of claim 98 further comprising powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

100. The software method of claim 99 further comprising powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

101. The software method of claim 95 further comprising enabling data flow from said first media to said MAC when said first and second links over said first and second media are established at the same time.

102. The software method of claim 101 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

103. The software method of claim 102 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

104. The software method of claim 103 wherein said first media is copper and said second media is optical fiber.

105. The software method of claim 103 further comprising generating a status signal based on the link that was established first.

U:\Legal\jejanofsky\patapp\MP0121\MP121\_APP.doc

106. A network device comprising:

a media access controller (MAC); and

a physical layer including a first interface means for communicating with said MAC, first and second transceivers, first autonegotiation means for attempting to establish a first link using said first transceiver over a first media, second interface means for communicating with said MAC, second autonegotiation means for attempting to establish a second link using said second transceiver over a second media, and media selection means for communicating with said first and second interface means and said first and second autonegotiation means and for enabling data flow from said first media to said MAC using said first interface means when said link over said first media is established first.

107. The network device of claim 106 wherein said media selection means disables said second interface means and powers down at least one of said second autonegotiation means and said second transceiver when said first link over said first media is established first.

108. The network device of claim 107 wherein said media selection means enables said second interface means and powers up said at least one of said second autonegotiation means and said second transceiver when said first link is lost.

109. The network device of claim 106 wherein said media selection means enables data flow from said second media to said MAC using said second interface means when said second link over said second media is established first.

110. The network device of claim 109 wherein said media selection means disables said first interface means and powers down at least one of said first autonegotiation means and said first transceiver when said second link over said second media is established first.

111. The network device of claim 110 wherein said media selection means enables said first interface means and powers up said at least one of said first autonegotiation means and said first transceiver when said second link is lost.

112. The network device of claim 106 wherein said media selection means enables data flow from said first media to said MAC using said first interface means when said first and second links over said first and second media are established at the same time.

113. The network device of claim 112 wherein said media selection means disables said second interface means and powers down at least one of said second autonegotiation means and said second transceiver when said first

and second links over said first and second media are established at the same time.

114. The network device of claim 113 wherein media selection means enables said second interface means and powers up said at least one of said second autonegotiation means and said second transceiver when said first link over said first media is lost.

115. The network device of claim 106 wherein said first media is copper and said second media is optical fiber.

116. The network device of claim 106 wherein said first and second interfaces are physical coding sublayer (PCS) circuits.

117. A method for operating a network device with a media access controller (MAC), comprising:

providing a physical layer including first and second interfaces that communicate with said MAC;

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media;

enabling data flow from said first media to said MAC using said first interface when said link over said first media is established first.

118. The method of claim 117 further comprising disabling said second interface and powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

119. The method of claim 118 further comprising enabling said second interface and powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

120. The method of claim 117 further comprising enabling data flow from said second media to said MAC using said second interface when said second link over said second media is established first.

121. The method of claim 120 further comprising disabling said first interface and powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

122. The method of claim 121 further comprising enabling said first interface and powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

123. The method of claim 117 further comprising enabling data flow from said first media to said MAC using said first interface when said first and second links over said first and second media are established at the same time.

124. The method of claim 123 further comprising disabling said second interface and powering down at least one of a second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.



125. The method of claim 124 further comprising enabling said second interface and powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

126. The method of claim 117 wherein said first media is copper and said second media is optical fiber.

127. The method of claim 117 wherein said first and second interfaces are physical coding sublayer (PCS) circuits.

U:\Legal\ejanofsky\palapp\MP0121\MP121\_APP.doc  
Customer No. 23624

128. A software method for operating a network device with a media access controller (MAC), comprising:

providing a physical layer including first and second interfaces that communicate with said MAC;

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media;

enabling data flow from said first media to said MAC using said first interface when said link over said first media is established first.

129. The software method of claim 128 further comprising disabling said second interface and powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

130. The software method of claim 129 further comprising enabling said second interface and powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

131. The software method of claim 128 further comprising enabling data flow from said second media to said MAC using said second interface when said second link over said second media is established first.

132. The software method of claim 131 further comprising disabling said first interface and powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

133. The software method of claim 132 further comprising enabling said first interface and powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

134. The software method of claim 128 further comprising enabling data flow from said first media to said MAC using said first interface when said first and second links over said first and second media are established at the same time.

135. The software method of claim 134 further comprising disabling said second interface and powering down at least one of a second autonegotiation circuit and said second transceiver when said first and second links over said first and second media are established at the same time.

136. The software method of claim 135 further comprising enabling said second interface and powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

137. The software method of claim 128 wherein said first media is copper and said second media is optical fiber.

138. The software method of claim 128 wherein said first and second interfaces are physical coding sublayer (PCS) circuits.

139. A physical layer of a network device including a media access controller (MAC), comprising:

interface means for communicating with said MAC and having first and second modes of operation;

a first transceiver;

first autonegotiation means for attempting to establish a first link using said first transceiver over a first media;

a second transceiver;

second autonegotiation means for attempting to establish a second link using said second transceiver over a second media; and

media selection means for communicating with said interface means and said first and second autonegotiation means and for enabling data flow from said first media to said MAC using said first mode of said interface means when said link over said first media is established first.

140. The physical layer of claim 139 wherein said media selection means powers down at least one of said second autonegotiation means and said second transceiver when said first link over said first media is established first.

141. The physical layer of claim 140 wherein said media selection means powers up said at least one of said second autonegotiation means and said second transceiver when said first link is lost.

142. The physical layer of claim 139 wherein said media selection means enables data flow from said second media to said MAC using said second mode of said interface means when said second link over said second media is established first.

143. The physical layer of claim 142 wherein said media selection means powers down at least one of said first autonegotiation means and said first transceiver when said second link over said second media is established first.

144. The physical layer of claim 143 wherein said media selection means powers up said at least one of said first autonegotiation means and said first transceiver when said second link is lost.

145. The physical layer of claim 139 wherein said media selection means enables data flow from said first media to said MAC using said first mode of said interface means when said first and second links over said first and second media are established at the same time.

146. The physical layer of claim 145 wherein said media selection means powers down at least one of said second autonegotiation means and said first transceiver when said first and second links over said first and second media are established at the same time.

147. The physical layer of claim 146 wherein media selection means powers up said at least one of said second autonegotiation means and said second transceiver when said first link over said first media is lost.

148. The physical layer of claim 139 wherein said first media is copper and said second media is optical fiber.

149. The physical layer of claim 139 further comprising indicating means for identifying the link that was established first.

150. A method for operating a physical layer of a network device including a media access controller (MAC), comprising:

communicating with said MAC with an interface having first and second modes of operation;

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media; and

enabling data flow from said first media to said MAC using said first mode of said interface when said link over said first media is established first.

151. The method of claim 150 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

152. The method of claim 151 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

153. The method of claim 150 further comprising enabling data flow from said second media to said MAC using said second mode of said interface when said second link over said second media is established first.



154. The method of claim 153 further comprising powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

155. The method of claim 154 further comprising powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

156. The method of claim 150 further comprising enabling data flow from said first media to said MAC using said first mode of said interface when said first and second links over said first and second media are established at the same time.

157. The method of claim 156 further comprising powering down at least one of a second autonegotiation circuit and said first transceiver when said first and second links over said first and second media are established at the same time.

158. The method of claim 157 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

159. The method of claim 150 wherein said first media is copper and said second media is optical fiber.

160. The method of claim 150 further comprising generating a status indicator that identifies the link that was established first.

U:\Legal\jejanofsky\patapp\MP0121\MP121\_APP doc

161. A software method for operating a physical layer of a network device including a media access controller (MAC), comprising:

communicating with said MAC with an interface having first and second modes of operation;

attempting to autonegotiate a first link using a first transceiver over a first media;

attempting to autonegotiate a second link using a second transceiver over a second media; and

enabling data flow from said first media to said MAC using said first mode of said interface when said link over said first media is established first.

162. The software method of claim 160 further comprising powering down at least one of a second autonegotiation circuit and said second transceiver when said first link over said first media is established first.

163. The software method of claim 161 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link is lost.

164. The software method of claim 161 further comprising enabling data flow from said second media to said MAC using said second mode of said interface when said second link over said second media is established first.

165. The software method of claim 164 further comprising powering down at least one of a first autonegotiation circuit and said first transceiver when said second link over said second media is established first.

166. The software method of claim 165 further comprising powering up said at least one of said first autonegotiation circuit and said first transceiver when said second link is lost.

167. The software method of claim 161 further comprising enabling data flow from said first media to said MAC using said first mode of said interface when said first and second links over said first and second media are established at the same time.

168. The software method of claim 167 further comprising powering down at least one of a second autonegotiation circuit and said first transceiver when said first and second links over said first and second media are established at the same time.

169. The software method of claim 168 further comprising powering up said at least one of said second autonegotiation circuit and said second transceiver when said first link over said first media is lost.

170. The software method of claim 161 wherein said first media is copper and said second media is optical fiber.

171. The software method of claim 161 further comprising generating a status indicator that identifies the link that was established first.

U:\Legal\ejanofsky\patapp\MP0121\MP121\_APP.doc  
Customer No 23624